

Atty Docket No.: JCLA8475

Serial No.: 10/015,449

REMARKS**Present Status of Patent Application**

Claims 1-5 and 11-15 remain pending, of which new claims 11-15 has been added to more explicitly describe the claimed invention. It is believed that no new matter adds by way of these amendments made to the claims or specification, or otherwise to the application. Support for the subject matter of the newly added claims can be found in FIG. 5 which clearly illustrates that the groups (C1, C2, C3 and C4) of piezoelectric ceramic units are symmetrically positioned within the underwater wide-band electroacoustic transducer. For at least for the following reasons, Applicant respectfully submits that claims 1-5 and 11-15 patently define over the prior art of record. Reconsideration is respectfully requested.

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Response to Claims Rejections under 35 USC§102

1. The Office Action rejected claims 1-2 and 4-5 under 35 U.S.C. 102(b), as being anticipated by Massa et al. (US-4,439,847, hereinafter Massa).

Applicants respectfully disagree and would like to point out that it is well established that for anticipation under 35 U.S.C. 102(b), all of the elements of the claimed invention must be exactly disclosed by a single prior art reference. Independent claim 1 is allowable for at least the reason that Massa substantially fails to teach, suggest or disclose every features of the claimed invention. More specifically, Massa substantially fails to teach, suggest or disclose an underwater wide-band electroacoustic transducer comprising at least ***"a plurality of groups of piezoelectric ceramic units, wherein each group of piezoelectric ceramic units has a different dimension and separates from each other by different distances, and the frequency response of the piezoelectric ceramic units are banded together to form a wide bandwidth response, as required by claim 1"***. The advantage of arranging a plurality of groups of piezoelectric ceramic units instead of arranging a plurality of individual piezoelectric ceramic units is that a smoother frequency response can be achieved.

Instead Massa substantially teaches an underwater wide-band electroacoustic transducer comprising [a plurality of **individual** ceramic transducer cylinders] 4, 13, 17 and 19 that are axially and concentrically arranged therewithin. In other words, Massa substantially fails to teach, suggest or disclose [a plurality of **groups** of piezoelectric ceramic units], wherein each group of piezoelectric ceramic units has a different dimension and separated from each other by different distances, as required by claim 1. Accordingly, Massa cannot meet the claimed invention in this regard.

For at least the foregoing reasons, Applicants respectfully submits claims 1-2 and 4-5 patently define over Massa and therefore should be allowed.

Because new claim 11 also recite features similar to claim 1, and therefore claim 11 is also allowable for the same reasons as set forth above. Further, Massa also fails to teach, suggest or disclose a plurality of groups of piezoelectric ceramic units are arranged symmetrically within the underwater wide-band electroacoustic transducer instead teaches that the plurality of

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individual ceramic cylinders are arranged concentrically (please see FIG. 2 of Massa patent) within the underwater wide-band electroacoustic transducer. Accordingly, Massa cannot meet new claim 6 in this regard. Since the remaining new claims 12-15 depend from claim 11, and therefore claims 12-15 also patently define over Massa for the same reasons as set forth above as well.

For at least the foregoing reasons, claims 1-2 and 4-5, and newly added claims 11-15, patently define over Massa. Reconsideration and withdrawal of these rejections is respectfully requested.

Response to Claims Rejections under 35 USC§103

2. The Office Action rejected claim 3 under 35 U.S.C. 103(a) as being unpatentable over Massa.

Applicants respectfully disagree and would like to point out that because claim 3 directly depend from claim 1 which is deemed allowable over Massa for at least the reasons set forth above, and therefore claim 3 is also allowable over Massa for the same reasons. Reconsideration and withdrawal of these rejections is respectfully requested.

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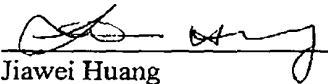
CONCLUSION

For at least the foregoing reasons, it is believed that all pending claims 1-5 and 11-15 are in proper condition for allowance. If the Examiner believes that a conference would be of value in expediting the prosecution of this application, he is cordially invited to telephone the undersigned counsel to arrange for such a conference.

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